

Intercontinental Exchange®

4Q17 Earnings Supplement

February 7, 2018

FORWARD-LOOKING STATEMENTS & LEGENDS

CAUTIONARY STATEMENT REGARDING FORWARD LOOKING STATEMENTS

This presentation may contain "forward-looking statements" made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Statements regarding ICE's business that are not historical facts are forward-looking statements that involve risks, uncertainties and assumptions that are difficult to predict. Although we believe the expectations reflected in these forward-looking statements are reasonable, these statements are not guarantees of future results, performance, levels of activity or achievements, and actual results may differ materially from what is expressed or implied in any forward-looking statement. The factors that might affect our performance include, but are not limited to: conditions in global financial markets, the economy and political and social conditions; changes in domestic and foreign laws, regulations, rules or government policy with respect to financial markets, or our businesses generally, including increased regulatory scrutiny or enforcement actions and our ability to comply with these requirements; volatility in our markets; our business environment and industry trends, including our competition; the success of our clearing houses and our ability to minimize the risks associated with operating multiple clearing houses in multiple jurisdictions; the success of our exchanges and their compliance with regulatory and oversight responsibilities; the resilience of our electronic platforms and soundness of our business continuity and disaster recovery plans; continued high renewal rates of subscription-based data revenues; our ability to identify and effectively pursue acquisitions and strategic alliances and successfully integrate the companies we have acquired or acquire in the future; our ability to effectively maintain our growth; performance and reliability of our technology and the technology of our third party service providers; our ability to ensure that the technology we utilize is not vulnerable to security risks, hacking and cyber-attacks; our ability to identify trends and adjust our business to respond to such trends; the accuracy of our estimates and expectations; our belief that cash flows from operations will be sufficient to service our current levels of debt and fund our working capital needs and capital expenditures for the foreseeable future; our ability to maintain existing customers and attract new customers and offer new products; our ability to attract and retain our key talent; our ability to protect our intellectual property rights, including the costs associated with such protection, and our ability to operate our business without violating the intellectual property rights of others; and potential adverse results of litigation and regulatory actions and proceedings. For a discussion of such risks and uncertainties, which could cause actual results to differ from those contained in the forward-looking statements, see ICE's Securities and Exchange Commission (SEC) filings, including, but not limited to ICE's most recent Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the SEC on February 7, 2018. These filings are available in the Investors section of our website. We caution you not to place undue reliance on these forward-looking statements. Any forward-looking statement speaks only as of the date on which such statement is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of an unanticipated event. New factors emerge from time to time, and it is not possible for management to predict all factors that may affect our business and prospects. Further, management cannot assess the impact of each factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

GAAP AND NON-GAAP RESULTS

This presentation includes non-GAAP measures that exclude certain items we do not consider reflective of our cash operations and core business performance. We believe that the presentation of these non-GAAP measures provides investors with greater transparency and supplemental data relating to our financial condition and results of operations. These adjusted non-GAAP measures should be considered in context with our GAAP results. A reconciliation of Adjusted Net Income Attributable to ICE, Adjusted Earnings Per Share, Adjusted Operating Income, Adjusted Operating Margin and Adjusted Operating Expenses to the equivalent GAAP measure and an explanation of why we deem these non-GAAP measures meaningful appears in our Form 10-K and in the appendix to this presentation. The reconciliation of Adjusted Effective Tax Rate, and Adjusted Debt-to-EBITDA to the equivalent GAAP results appear in the appendix to this presentation. Our Form 10-K, earnings press release and this presentation are available in the Investors and Media section of our website at www.theice.com.

EXPLANATORY NOTES

All net revenue figures represent revenues less transaction based expenses for periods shown. All earnings per share figures represent diluted weighted average share count on continuing earnings.

ICE FOURTH QUARTER 2017 EARNINGS CALL PARTICIPANTS

Management:



Jeff Sprecher
Chairman & CEO
Chairman, NYSE



Ben Jackson
President



Scott Hill
Chief Financial Officer

Investor Relations:

• Warren Gardiner, CFA	Vice President, Investor Relations	warren.gardiner@theice.com
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FOURTH QUARTER 2017 PERFORMANCE

in millions except per share amounts

INCOME STATEMENT HIGHLIGHTS	4Q17	4Q16	% Chg
Net Revenues[1]	$1,144	$1,138	1%
Adj. Op Expenses	$479	$493	(3)%
Adj. Op Income	$665	$645	3%
Adj. Op Margin	58%	57%	+1 pt
Adj. Diluted EPS	$0.73	$0.71	3%
Adj. Effective Tax Rate	*31%*	*30%*	*+1 pt*

CASH METRICS	2017	2016	% Chg
Op Cash Flow[3]	$2,085	$2,149	(3)%
Cap Ex & Cap Software	$357	$365	(2)%

Compounding data and volume growth

2017 data revenue

+6% y/y, CC[2]

2017 Futures

ADV +10% y/y

OI +11% y/y

Exceeded FY '17 synergy targets

- **Achieved $70MM of synergies in 2017**
- **Adj. op margins expanded 1 pt**

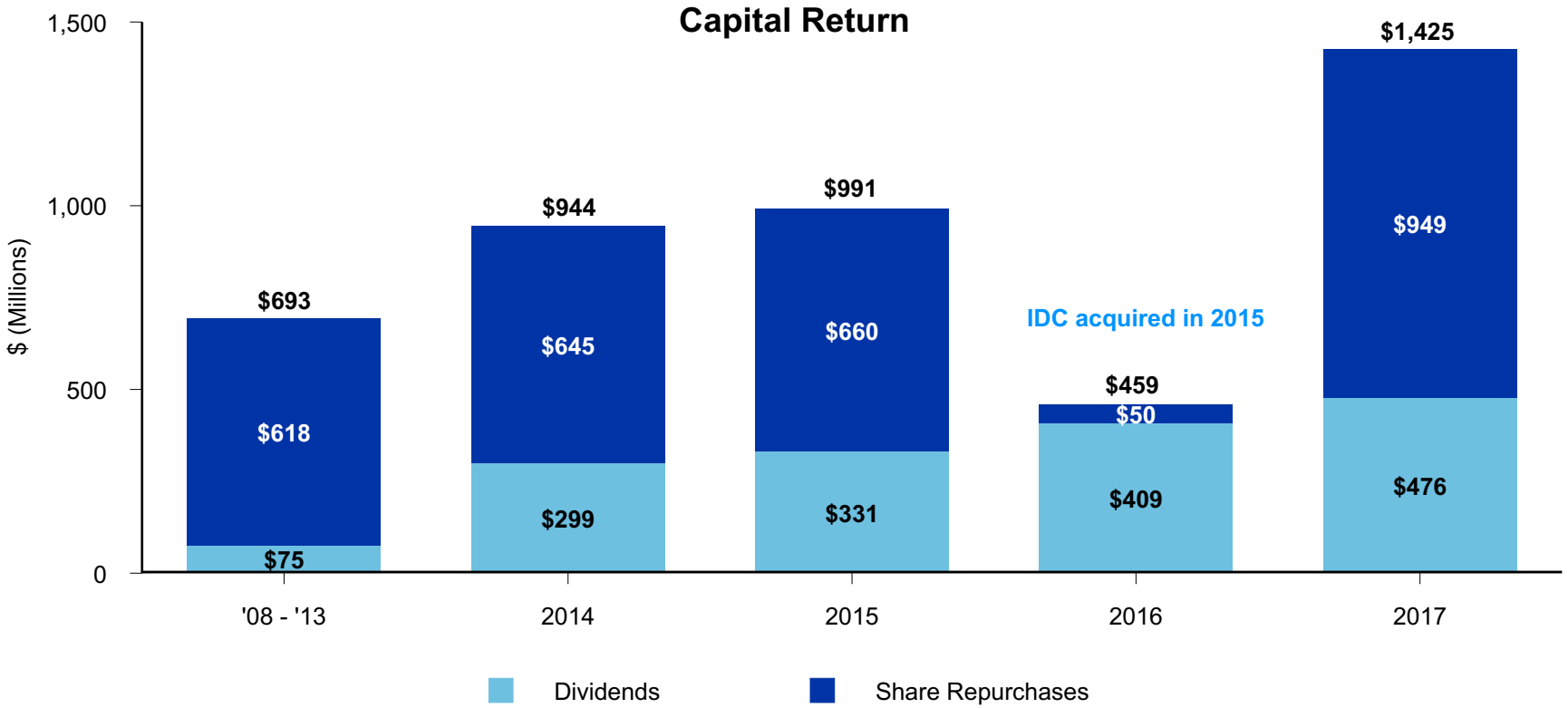
Record annual capital return

$1.4 billion **returned to shareholders in 2017**

(1) Net of transaction-based expenses
(2) Net revenues in constant currency are calculated holding both the pound sterling and euro at the average exchange rate from 2016, 1.3603 and 1.1075, respectively
(3) Includes $136MM contribution made to the legacy NYSE pension plan in 2017
Adjusted figures represent non-GAAP measures. Please refer to slides in the appendix for reconciliations to the equivalent GAAP measures

RECORD ANNUAL CAPITAL RETURN IN 2017

- $1.4B returned to shareholders in 2017, more than any year in our history
  - $949MM in shares repurchased
  - $476MM in dividends, +16% y/y
- Repaid $275MM in debt in 2017, reducing leverage to 2.1x debt-to-EBITDA(1)
- **1Q18 dividend +20% y/y, $1.2B share repurchase program effective Jan 1, 2018**
  - *$103MM repurchased in January 2018*



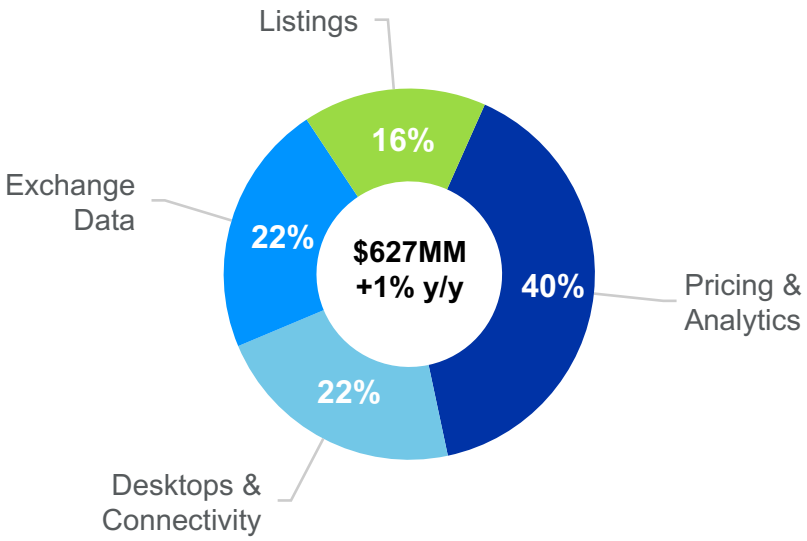
(1) Adjusted debt-to-EBITDA reflects the ratio of adjusted debt to adjusted EBITDA for the trailing twelve months. This reflects a non-GAAP measure. Please refer to slides in the appendix for reconciliation to the equivalent GAAP measure.

FOURTH QUARTER 2017 DATA & LISTINGS RESULTS

- Closed on acquisition of ICE BofAML indices establishing ICE as 2nd largest fixed income index provider
- Transitioned ICE BofAML reference data to ICE Data Services
- **Growth in segment underpinned by continued demand for data and information services**

$ (in millions)	4Q17	4Q16	% Chg	Organic CC(1)(2)
Revenue:				
Pricing and Analytics	248	234	**6%**	**5%**
Desktops and Connectivity	137	149	**(7)%**	**5%**
Exchange Data	140	132	**6%**	**6%**
Data SubTotal	**525**	**515**	**2%**	**5%**
Listings	102	105	**(2)%**	**3%**
Total Revenue	**627**	**620**	**1%**	**5%**
Adj. Operating Expenses	306	315	(2)%	
Adj. Operating Margin	51%	49%	+2 pts	

4Q17 Data & Listings Revenue



(1) Net revenues in constant currency are calculated holding both the pound sterling and euro at the average exchange rate from 4Q16, 1.2437 and 1.0801, respectively
(2) Organic growth excludes material business that have been acquired, divested or discontinued and significantly impact the comparable periods. For 4Q17 and 4Q16, $8MM and $33MM of data and listings revenues were excluded respectively
Adjusted figures represent non-GAAP measures. Please refer to slides in the appendix for reconciliations to the equivalent GAAP measures

DATA GROWTH THESIS PROVING OUT

- **Organic annual subscription value, or ASV, +6%[1] y/y entering 1Q18**
- Global 2017 Pricing & Analytics (P&A) signings +12% y/y; ~40% of signings from newer growth products
- Capacity growth +20% y/y on SFTI, our exclusive distribution network

AMERICAS[2]

73% of 2017 data revenue[3][4]

2017 Revenue y/y [3][4]

+4%

2017 P&A signings +6% y/y

- **Continued strong retention rates**
- **Growth driven by continued demand for reference data, bond evaluations and liquidity indicators**

EMEA

23% of 2017 data revenue[3][4]

2017 Revenue y/y [3][4]

+6%

2017 P&A signings +29% y/y

- **Increased demand for Best Ex., CEP and Liquidity Indicators driven by Mifid II**
- **Increased demand for connectivity and feeds solutions as customers increase data consumption**

APAC

4% of 2017 data revenue[3][4]

2017 Revenue y/y [3][4]

+16%

2017 P&A signings +12% y/y

- **Shift to passive investing driving demand for ETF solutions including iNav and index solutions such as FANG+ and ICE BofAML**
- **Strength in fixed income evaluations and index solutions**

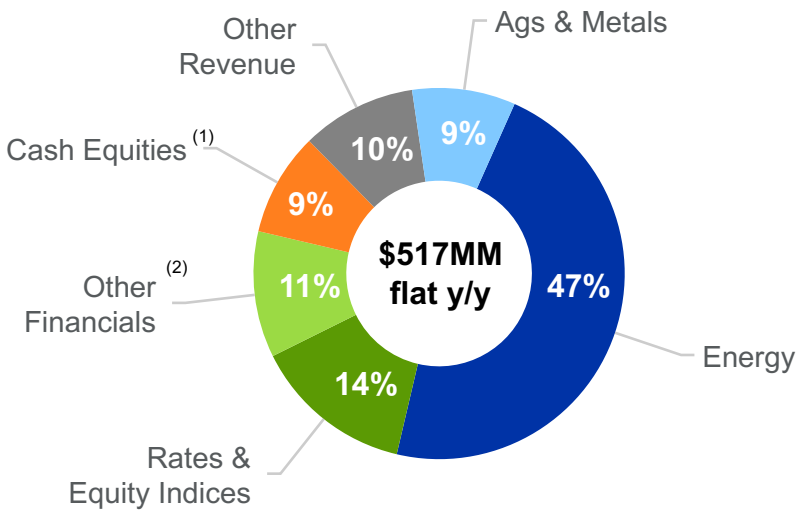
(1) Organic ASV is defined as the annual value of subscriptions under contract entering 1Q18 compared to the subscriptions under contract entering 1Q17 excluding material businesses that have been acquired, divested or discontinued and significantly impact the comparable periods
(2) The Americas region also includes "other" regions that represent an immaterial portion of our total data revenues
(3) Net revenues in constant currency are calculated holding both the pound sterling and euro at the average exchange rate from 2016, which was 1.3603 and 1.1075, respectively
(4) Organic growth excludes material businesses that have been acquired, divested or discontinued and significantly impact the comparable periods. For 2017 and 2016, $86MM and $67MM of data revenues were excluded, respectively.

FOURTH QUARTER 2017 TRADING & CLEARING RESULTS

- 4Q17 Brent ADV +7% y/y, EU & UK interest rates +2% y/y
- 2017 annual ADV +10% y/y, Open Interest (OI) +11% y/y
  - **Annual ADV record in Energy, Brent, Sterling and MSCI; OI record for Total Oil**
- January 2018 ADV +12% y/y, led by Interest Rates +28% y/y; OI +12% y/y, Brent OI +5% y/y
- 4Q17 energy RPC +4% y/y, interest rates RPC +6% y/y

$ (in millions)	4Q17	4Q16	% Chg
Revenue, net:			
Commodities	$289	$284	**2%**
Financials[1]	174	188	**(8)%**
Other	54	46	**16%**
Total Revenue	**$517**	**$518**	**—%**
Adj. Operating Expenses	173	178	**(3)%**
Adj. Operating Margin	67%	66%	+1 pt

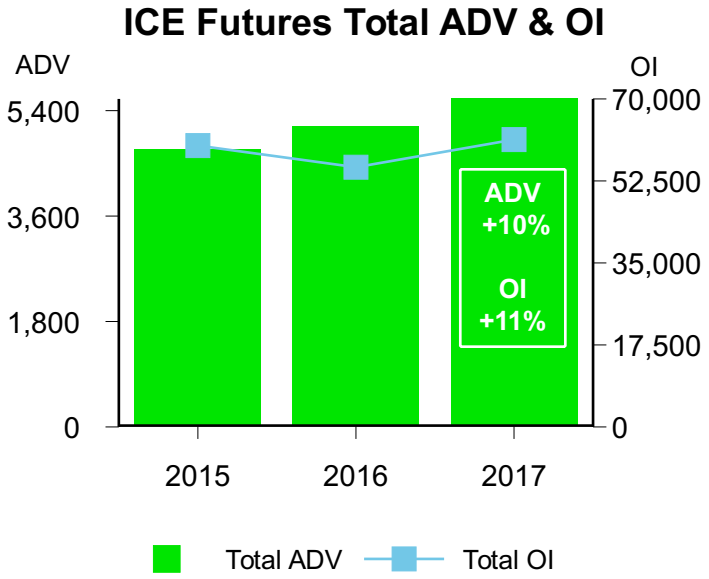
4Q17 Trading & Clearing Revenue

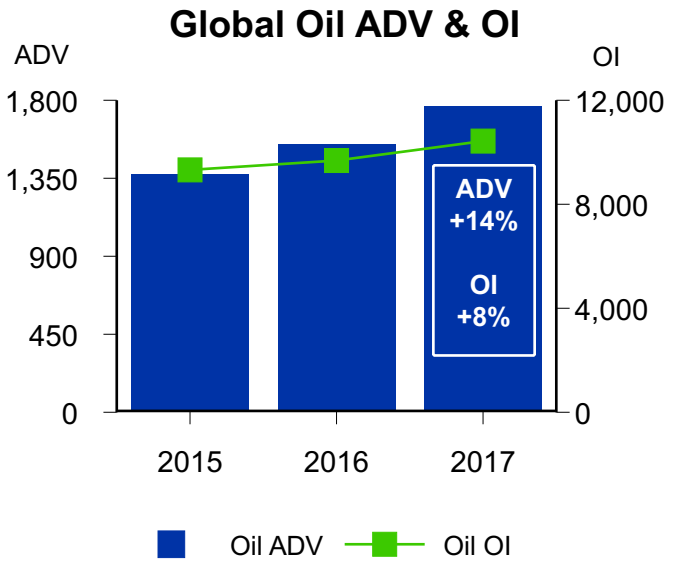


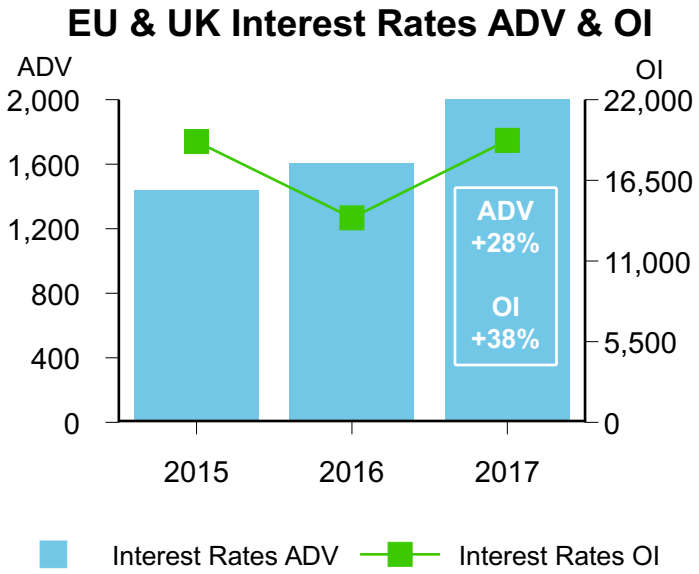
(1) Net of transaction-based expenses
(2) Other financials includes equity options, net, FX and credit transactions
Adjusted figures represent non-GAAP measures. Please refer to slides in the appendix for reconciliations to the equivalent GAAP measures

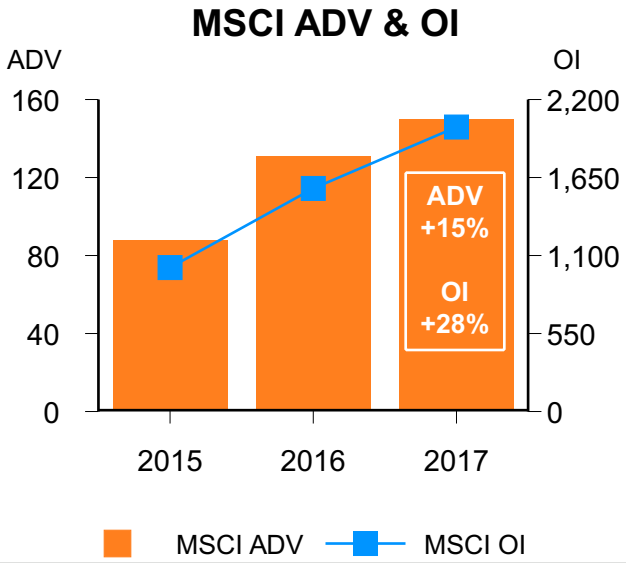
STRONG ANNUAL FUTURES GROWTH TRENDS

All figures in thousands









2018 GUIDANCE

Financial Guidance

- **Data revenue** 6-7% organic growth (see appendix for 2017 GAAP to organic bridge)
- **Cap ex/software** $300 - $330MM; down ~10% y/y
- **Adj. effective tax rate** 22% - 25%
- **1Q18 adj. expenses** $495 - $505MM
- **1Q18 interest expense** $52MM
- **Share count** 582 - 592MM for 1Q18; includes January share repurchases

Capital Return

- **1Q18 dividend** $0.24/quarter, +20% y/y
- **Existing repurchase authorization** of $1.2 billion at beginning of 2018; +20% vs. prior authorization

Expenses/Synergies

- **Adj. expenses $2.00 - $2.05B for FY18**
  - **Expect to deliver synergies of $30MM in 2018**
  - $10MM impact related to legacy NYSE pension
  - $15MM FX / M&A increases offset by $40MM+ revenue
  - $20MM tied to revenue growth
  - $35 - $40MM in merit pay & performance bonuses
  - $30 - $35MM re-investment of tax savings into strategic platforms

Adjusted figures represent non-GAAP measures

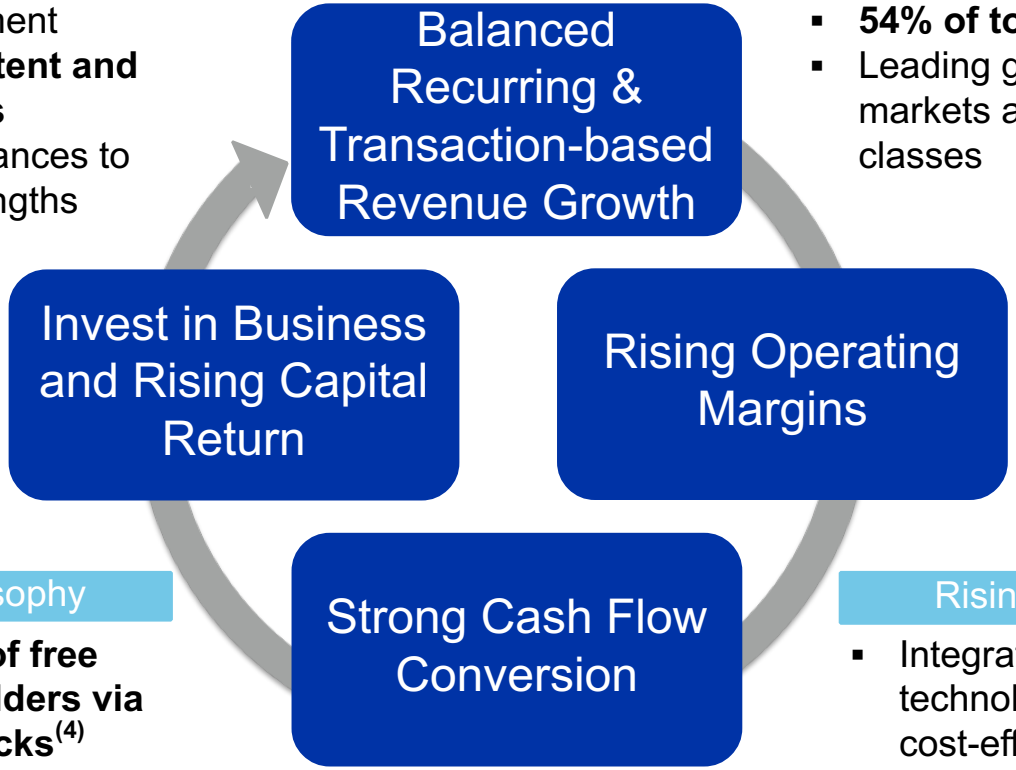
A PROVEN MODEL FOR SUSTAINABLE GROWTH

Strategic Investments

- New product development
- **Expand range of content and distribution solutions**
- Strategic M&A and alliances to leverage our core strengths and drive growth

Balanced Portfolio

- **54% of total revenue is recurring**
- Leading global benchmarks, markets and data across asset classes



Capital Return Philosophy

- **Goal to return 100% of free cash flow to shareholders via dividends and buybacks**[4]
- 2017 capital return $1.4B with leverage within target of 2.0 - 2.25x adj. debt-to-EBITDA[3]

Strong Cash Flow Generation

- **Avg cash flow conversion 44%**[2] **2015-2017**

Rising Operating Margins

- Integrated and innovative technology platform supports cost-efficient business expansion
- **2017 adj. op margin of 58%, above peer group average**[1]

(1) Peer group consists of CME Group Inc., Deutsche Boerse Ag., Nasdaq Inc., S&P Global Inc., IHS Markit Ltd., MSCI Inc., and Thomson Reuters Corp. for the 9 months ending 9/30/2017 and London Stock Exchange Plc. for the 6 months ending 6/30/2017
(2) Cash flow conversion = operating cash flow / total net revenue
(3) Adjusted debt-to-EBITDA reflects the ratio of adjusted debt to adjusted EBITDA for the trailing twelve months.
(4) Net of M&A
Adjusted figures represent non-GAAP measures. Please refer to slides in the appendix for reconciliations to the equivalent GAAP measures

A FOUNDATION FOR GROWTH



World's Largest Energy Marketplace

- 2017 energy revenue over $900MM, +5% y/y; ADV +8% y/y; OI +6% y/y
- Record annual energy volume in 2017
- Positioned for growth as Nat Gas begins to globalize; largely commercial client base and leading presence in the physical Nat Gas market



World's Largest European & U.K. Interest Rates Complex

- Interest Rate ADV +28% y/y in 2017; OI +38% y/y on top of strong 2016 growth
- Tailwinds continue for increased volume in 2018 driven by central bank activity, economic growth in EU, inflation and political uncertainty



World's Largest Risk Management Infrastructure

- Derivatives and securities offerings in major asset classes including energy, ags, interest rates, FX, equity indices, fixed income and equities
- Global presence drives ability to quickly adjust to changing market environments and regulation; seven global clearinghouses across five market centers



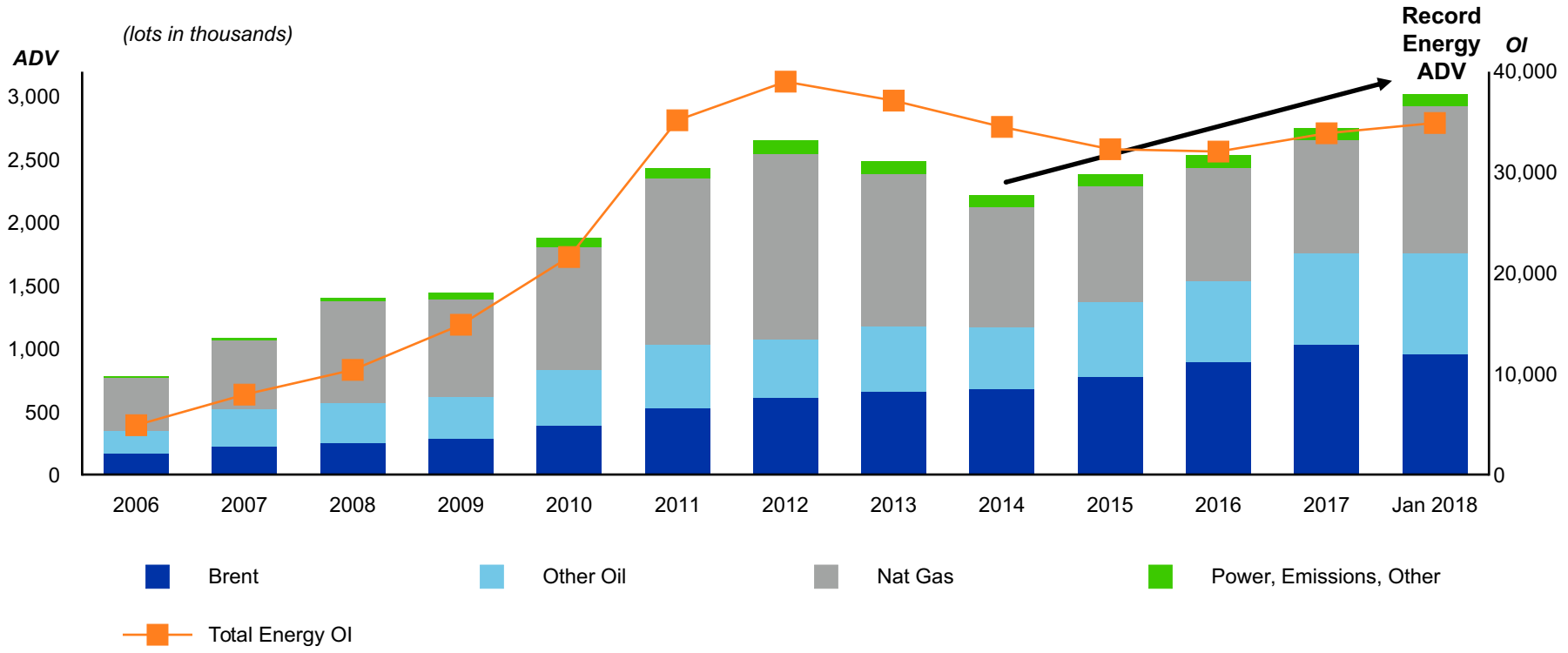
World's Largest Provider of Unique Derived Data & Connectivity

- Mission critical data serving each stage of the trade lifecycle; pre-trade, trade, post-trade
- Broadest data set covering the largest asset classes including commodities, financials, equities and fixed income
- Global distribution solutions via SFTI, ICE Connect desktop and feeds business

WORLD'S LARGEST & MOST DIVERSE ENERGY MARKET

- **21st consecutive record volume year in Brent, WTI ADV +14% y/y; 500+ related oil products**
- January gasoil ADV +19% y/y; number of refined oil products continuing to grow
- NA Nat Gas basis market products at record volume and OI levels in January
- Leading U.K. & European Nat Gas markets and related emissions and power markets

Total Energy ADV & OI



SECULAR GROWTH DRIVING DEMAND FOR ICE SOLUTIONS

Futures & OTC Business

Expanding Futures & OTC Markets

- NGX acquisition adds to Nat Gas leadership
- 500+ oil products referencing Brent & growing
- EU & UK rates ADV +28% in 2017, OI +38%

Demand for Data & Efficiency for Fixed Income Workflows

- **BondPoint, BondEdge, Creditex Platform + CEP**
- ICE BofAML fixed income indices
- End of day and real-time pricing
- Reference data on 11M financial instruments
- Linking execution and information to drive efficiencies
- Investing in MERS platform

Distribution & Content

Demand for Information Driving Product Expansion

- **Launch of Cryptocurrency Data Feed with Blockstream**
- FANG+ Index and futures contract
- ICE Connect desktop solution
- Administer of global benchmarks including the LBMA Gold & Silver Price

Information Security Requires Safe Data Delivery

- SFTI network is the most extensive, reliable, ultra-low latency network connectivity solution
- Feeds from 600+ sources
- Integrated desktop solution serves customers in front, middle and back offices

Capital Markets

Listings Leadership Continues

- #1 exchange globally with >$31B in IPO proceeds raised in 2017
- NYSE has listed 38 of 38 last IPOs that raised $700M or more
- **NYSE closing auction offers deepest liquidity for listed companies**

Passive Driving Demand for Data

- ICE BofAML fixed income indices
- Leading ETF listings venue
- End of day and real-time pricing
- Reference data on 11M financial instruments
- **Self indexing solutions**
- Index Calculation Services (iNav)
- Multi-asset class analytics

CONSISTENT TRACK RECORD OF GROWTH

- **12th consecutive year of record revenue and adj. EPS**
- 1Q18 dividend +20% y/y; $1.2B share repurchase authorization, +20% vs. prior authorization

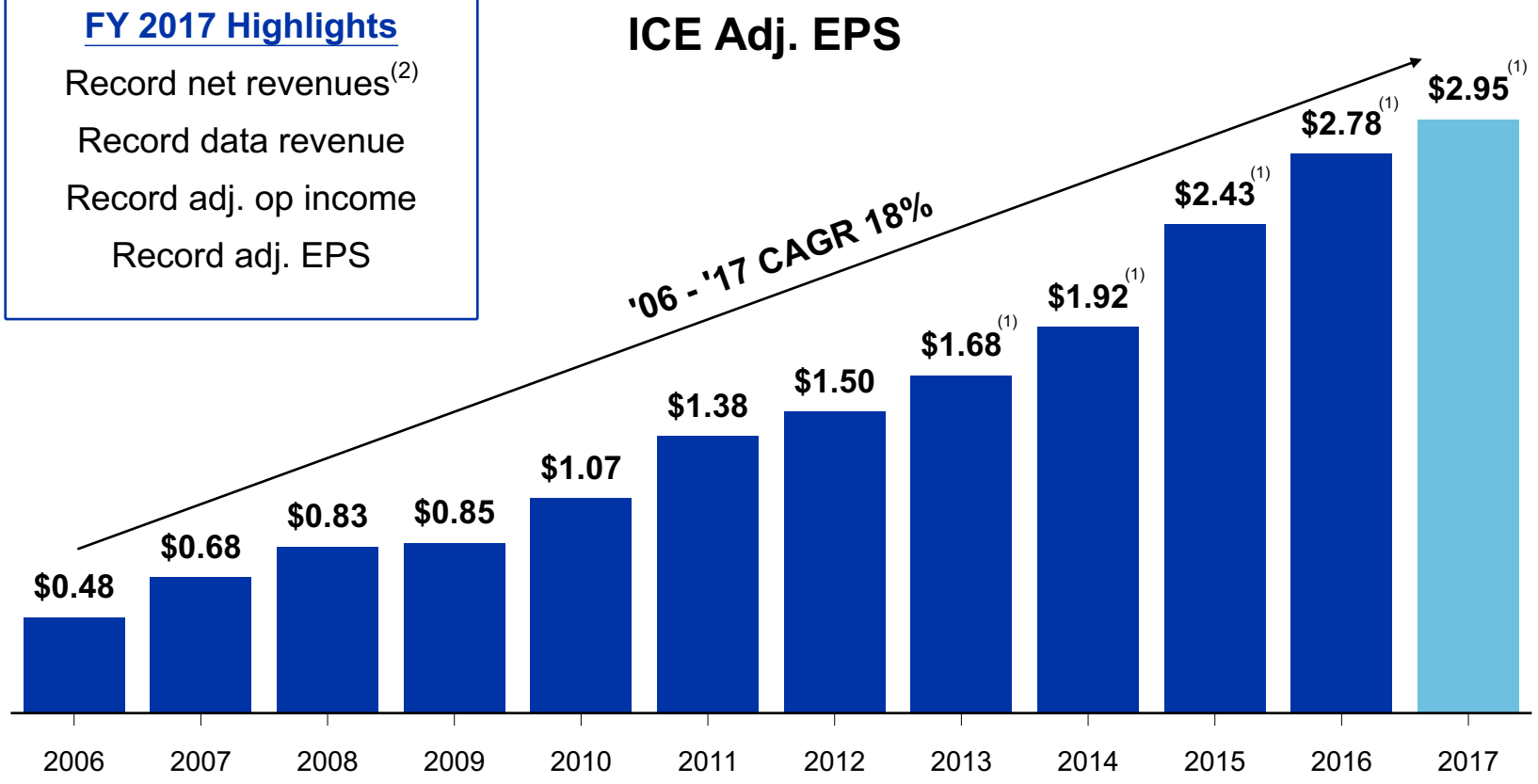
FY 2017 Highlights

Record net revenues(2)

Record data revenue

Record adj. op income

Record adj. EPS

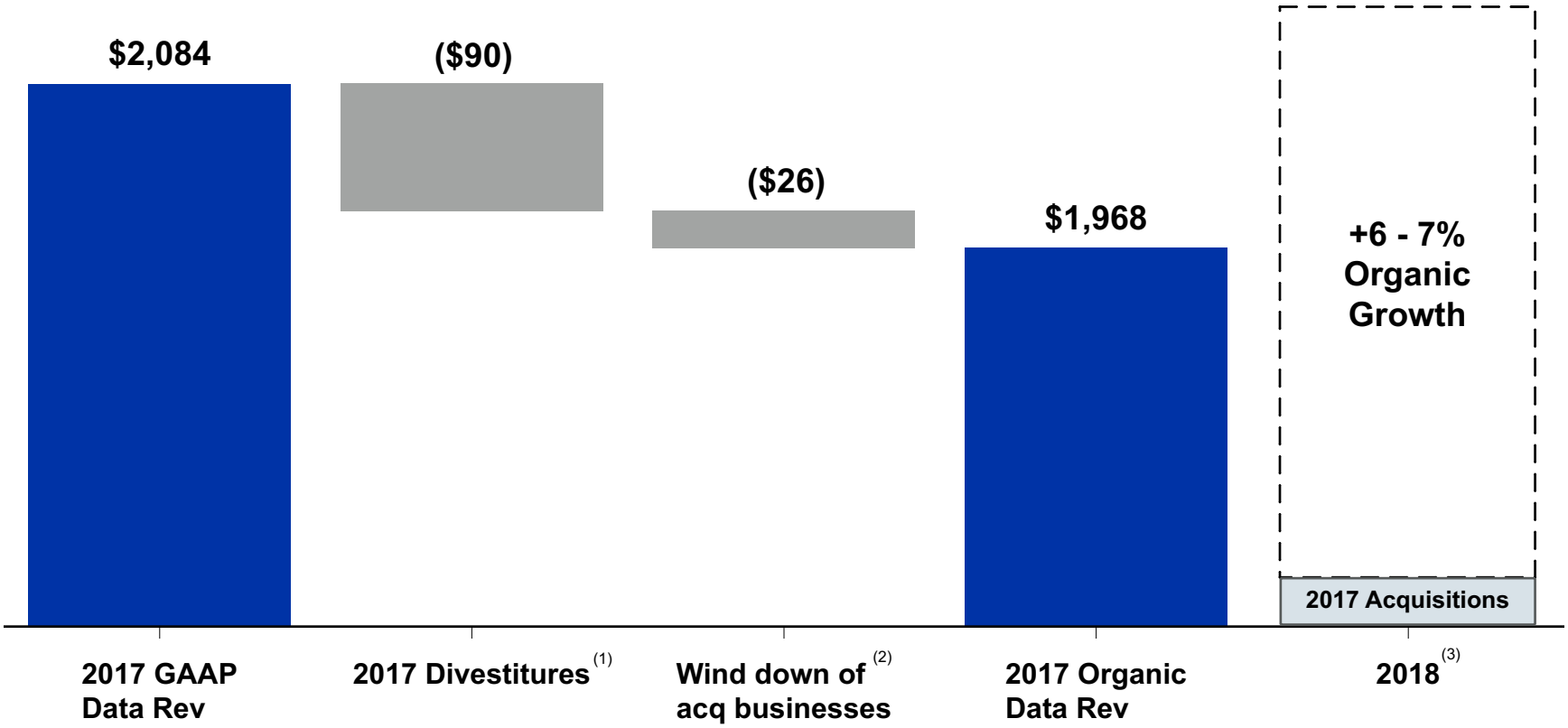


(1) Adjusted figures represent non-GAAP measures. Please refer to slides in the appendix for reconciliations to the equivalent GAAP measures
(2) Net of transaction-based expenses

APPENDIX

GAAP TO ORGANIC DATA REVENUE GROWTH

in millions



(1) Divestitures include the sale of IDMS in 1Q17 and Trayport in 4Q17
(2) Wind down of acquired businesses includes the discontinuation of certain businesses acquired as part of a larger acquisition that are no longer strategic for the company. These include the anticipated 2018 erosion of legacy SPSE customers who can no longer use IDC & SPSE as as their primary and secondary source of data and the impact of exiting certain non-strategic components of the legacy IDC 7-Ticks business.
(3) Revenue from 2017 acquisitions including ICE BofAML, TMX Atrium, BondPoint and NGX which will be excluded from the organic revenue calculation in 2018

ICE SUMMARY BALANCE SHEET

in millions

BALANCE SHEET	12/31/2017	12/31/2016	CHANGE
Assets			
Unrestricted Cash	$535	$407	$128
Other Current Assets	53,027	56,726	(3,699)
Current Assets	53,562	57,133	(3,571)
PPE (net)	1,246	1,129	117
Other Assets	23,456	23,741	(285)
Total Assets	$ 78,264	$ 82,003	$(3,739)
Liabilities & Equity			
Short-Term Debt	$ 1,833	$ 2,493	$(660)
Other Current Liabilities	52,338	56,124	(3,786)
Long-Term Debt	4,267	3,871	396
Other Long-Term Liabilities	2,874	3,725	(851)
Total Liabilities	61,312	66,213	(4,901)
Redeemable Noncontrolling Int	0	36	(36)
Total Equity	16,952	15,754	1,198
Total Liabilities & Equity	$ 78,264	$ 82,003	$(3,739)

- $535MM unrestricted cash
- Total debt of $6.1B; Adj. Debt-to-EBITDA(1) of 2.1x
- $357MM 2017 capex / software
  - Op capex & cap software $316MM
  - Non op capex $41MM
- TTM ROIC(2) of 11.3%; WACC 6.5%

(1) This is a non-GAAP measure. Please refer to slides in the appendix for reconciliation to the equivalent GAAP measure
(2) ROIC = LTM (Operating Income x (1-Tax Rate)) / (Avg Debt + Avg Shareholders Equity + Avg Minority Interest - Avg Cash, Cash Equiv, & ST Investments)

ADJUSTED NET INCOME FROM CONTINUING OPS AND EPS FROM CONTINUING OPS

in millions (except per share amounts)	3 Months Ended 12/31/17	3 Months Ended 12/31/16	12 Months Ended 12/31/17	12 Months Ended 12/31/16
Net income attributable to ICE	$1,225	$352	$2,514	$1,422
Add: Interactive Data and NYSE transaction and integration costs	8	15	31	46
Add: Impairment on divestiture of NYSE Governance Services	—	—	6	—
Add: Accruals relating to ongoing investigations and inquiries	—	—	14	—
Add: Employee severance costs related to Creditex U.K. brokerage operations	—	—	—	4
Add: Creditex customer relationship intangible asset impairment	—	—	—	33
Add: Amortization of acquisition-related intangibles	65	72	261	302
Less: Gain on divestiture of Trayport	(110)	—	(110)	—
Less: Cetip investment gain, net	—	—	(167)	—
Less: Income tax effect related to the items above	11	(32)	(43)	(143)
Less: Tax adjustment on U.S. tax reform	(764)	—	(764)	—
Add/(Less): Deferred tax adjustments on acquisition-related intangibles	(2)	(2)	10	(22)
Add/(Less): Other tax adjustments	—	23	—	23
Adjusted net income attributable to ICE	$433	$428	$1,752	$1,665
Diluted EPS from continuing operations	$2.08	$0.59	$ 4.23	$ 2.37
Adjusted Diluted EPS from continuing operations	$0.73	$0.71	$2.95	$2.78
Diluted weighted average common shares outstanding	589	600	594	599

ADJUSTED NET INCOME FROM CONTINUING OPS AND EPS FROM CONTINUING OPS

in millions (except per share amounts)	12 Months Ended 12/31/15	12 Months Ended 12/31/14	12 Months Ended 12/31/13
Net income attributable to ICE	$1,274	$981	$254
Add: NYSE and Interactive Data transaction and integration costs and acquisition related success fees	83	124	140
Add: Amortization of acquisition-related intangibles	140	131	56
Add: Litigation settlements and accruals, net of insurance proceeds	15	—	—
Add: Pre-acquisition interest expense on debt issued for Interactive Data acquisition	5	—	—
Add: Cetip impairment loss	—	—	190
Add: Duplicate rent expense and lease termination costs	—	—	7
Add: Early payoff of outstanding debt	—	—	51
Less: Income from OCC equity investment	—	(26)	—
Less: Net gain of sale of 6% remaining ownership in Euronext	—	(4)	—
Less: Income tax effect related to the items above	(83)	(89)	(85)
Less: Deferred tax adjustments on acquisition-related intangibles	(82)	(14)	—
Add: Other tax adjustments	7	12	—
Add/Less: Income (loss) from discontinued operations, net of tax	—	(11)	50
Adjusted net income attributable to ICE	$1,359	$1,104	$663
Diluted EPS from continuing operations	$ 2.28	$ 1.69	$ 0.77
Adjusted Diluted EPS from continuing operations	$2.43	$1.92	$1.68
Diluted weighted average common shares outstanding	559	573	396

ADJUSTED OPERATING INCOME, OPERATING MARGIN & OPERATING EXPENSE RECONCILIATION

in millions	3 Months Ended 12/31/17	3 Months Ended 12/31/16	12 Months Ended 12/31/17	12 Months Ended 12/31/16
Total revenues, less transaction-based expenses	$1,144	$1,138	$4,629	$4,499
Total operating expenses	552	580	2,250	2,332
Less: NYSE and Interactive Data transaction and integration costs	8	15	31	46
Less: Impairment on divestiture of NYSE Governance Services	—	—	6	—
Less: Accruals related to ongoing investigations and inquiries	—	—	14	—
Less: Employee severance costs related to Creditex U.K. brokerage operations	—	—	—	4
Less: Creditex customer relationship intangible asset impairment	—	—	—	33
Less: Amortization of acquisition-related intangibles	65	72	261	302
Adjusted total operating expenses	$479	$493	$1,938	$1,947
Adjusted operating income	$665	$645	$2,691	$2,552
Operating margin	52%	49%	51%	48%
Adjusted operating margin	58%	57%	58%	57%

ADJUSTED EBITDA RECONCILIATION

in millions	12 Months Ended 12/31/17
Adjusted net income	**$1,752**
Add: Income tax benefit	(25)
Add: Income tax expense adjustment on Non-GAAP Items	797
Add: Interest expense	187
Add: Depreciation and amortization[(1)]	268
Adjusted EBITDA	**$2,979**
Debt, as reported	**6,100**
Add: Balance of unamortized premiums/discounts and debt issuance costs, net	35
Principal amount of debt outstanding (Adjusted Debt)	**$6,135**
Adjusted Debt-to-EBITDA leverage ratio	**2.1x**

(1) Excludes adjustments already included in Non-GAAP financial measures

ADJUSTED EFFECTIVE TAX RATE RECONCILIATION

in millions	3 Months Ended 12/31/17	3 Months Ended 12/31/16	12 Months Ended 12/31/17	12 Months Ended 12/31/16
Income before income tax expense (benefit)	$669	$530	$2,517	$2,029
Less: Income tax expense (benefit)	(562)	171	(25)	580
Net Income	$1,231	$359	$2,542	$1,449
Effective tax rate	(84)%	32%	(1)%	29%
Income before income tax expense (benefit)	$669	$530	$2,517	$2,029
Add: Interactive Data and NYSE transaction and integration costs	8	15	31	46
Add: Impairment on divestiture of NYSE Governance Services	—	—	6	—
Add: Accruals related to ongoing investigations and inquiries	—	—	14	—
Add: Employee severance costs related to Creditex U.K. brokerage operations	—	—	—	4
Add: Creditex customer relationship intangible asset impairment	—	—	—	33
Add: Amortization of acquisition-related intangibles	65	72	261	302
Less: Gain on divestiture of Trayport, net	(110)	—	(110)	—
Less: Cetip investment gain, net	—	—	(167)	—
Adjusted Income before income taxes	$632	$617	$2,552	$2,414
Income tax expense (benefit)	$(562)	$171	$(25)	$580
Less: Income tax effect for the above items	11	(32)	(43)	(143)
Less: Deferred tax adjustment on U.S. tax reform	(764)	—	(764)	—
Less: Deferred tax adjustments on acquisition related intangibles	(2)	(2)	10	(22)
Less: Other tax adjustments	—	23	—	23
Adjusted income tax expense	$193	$182	$772	$722
Adjusted effective tax rate	31 %	30%	30 %	30%